CRTC - Broadcast

Ottawa, 28 June 1993
Public Notice CRTC 1993-95

A LICENSING POLICY FOR LOW-POWER RADIO BROADCASTING

A.Introduction

In Public Notice CRTC 1992-21, the Commission issued for public comment a series of questions related to the establishment of a priority system for the licensing of low-power radio stations. The questions were designed to elicit comment that would assist the Commission in developing a policy to ensure that low-power frequencies be used for purposes that best fulfil the objectives of the Broadcasting Act.

Nine submissions were received in response to the public notice. While most of the submissions addressed the general questions concerning the establishment of a priority system for licensing low-power radio stations, only the Canadian Association of Broadcasters (CAB) and the National Campus and Community Radio Association (NCRA), responded to all or most of the questions, and suggested modifications to the Commission's proposed policy.

This notice summarizes the responses received to the various questions set out in the public notice, and sets out the Commission's licensing policy for low-power radio broadcasting.

The Commission emphasizes that this policy does not apply to those persons operating low-power radio operations that were specifically exempted from licensing in Public Notices CRTC 1993-44 (Temporary Resource Development Distribution Undertakings), 1993-45 (Limited Duration Special Event Facilitating Undertakings) 1993-46 (Ultra Low-Power Announcement Service Undertakings), 1993-47 (Carrier Current Undertakings Whose Services are not Carried on Cable Systems), or to those persons operating any other low-power radio undertakings that the Commission may exempt in the future.

B.Questions and Responses

In its public notice, the Commission asked three general questions:

Should a system of priorities be devised as part of a licensing policy for low-power radio?

What should be its elements?

In what order of importance should those elements be ranked?

The public notice then called for comments on five elements that might be included in a priority system. These elements are:

a)availability of frequencies,b)content of programming,c)correlation between power and potential audience,d)duration of service, ande)availability of alternate means of delivery.

Finally, the Commission posed subsidiary questions relating to the implementation of a priority system, in particular, when to apply such a priority system, whether to issue calls for competing applications, the need for market studies, the use of rebroadcasters, and the need for a Promise of Performance. **1. The Need For a Priority System**

Seven of the nine briefs received by the Commission addressed the general issue of whether the Commission should establish a priority system for the licensing of low-power radio stations. All considered that a priority system should form part of the policy for low-power radio, with priority given to conventional stations, including not-for-profit stations, over non-conventional or one-dimensional services, such as tourist information services.

2. The Five Elements:

a)Availability of Frequencies

In the public notice, the Commission asked:

What should be the relative importance in a priority hierarchy of the availability of low-power frequencies in any area?

Six submissions addressed this question. All considered that the availability of frequencies should be the primary consideration in such a system. Two of those argued that the availability of frequencies must be considered to ensure that sufficient spectrum is available for the establishment of not-for-profit campus, community or native stations.

b)Content

With respect to content, the Commission posed the following questions:

What should be the relative importance of content among the elements in a priority

hierarchy?
Should the various types of services (conventional, safety, traffic information, etc.) be ranked in order of public necessity and, if so, how? Which of the various types of undertakings should be allowed to provide commercial content? What types of commercial activity (conventional or sponsorship) should be permitted, and how much? Should there be a provision with respect to certain undertakings to ensure equitable opportunity for advertisers to have their messages broadcast?
Six parties expressed the view, in general, that conventional stations should have priority over one-dimensional services.
The NCRA stated that not-for-profit stations should be accorded top priority and that commercial broadcasters should be excluded from using low-power frequencies. The NCRA added that, even if the Commission were to decide to continue to license low-power conventional commercial stations, it should not licence for-profit, one-dimensional services.
The CBC considered that originating and rebroadcasting stations with programming aimed at a general audience should be given priority over one-dimensional services.
According to the CAB, the best way of resolving the question of priorities would be to establish two broad categories of undertakings. **Priority A** would encompass all conventional stations, while one-dimensional services would fall into **Priority B**. Priority B stations could be divided further into two sub-categories, one for not-for-profit public services and the other for profit-oriented services.
With respect to the permitted levels of advertising, the CAB argued that the status quo should be maintained for not-for-profit stations and that private, profit-oriented services be the only ones in the **Priority B** category permitted to broadcast advertising. The CAB also considered that government-sponsored services should be financed entirely from public funds, and special events stations should be funded entirely by the sponsoring organization. For its part, the NCRA recommended that only conventional stations be permitted to have commercial content in their programming.
c)Correlation Between Power and Coverage
The Commission sought answers to the following questions:
What should be the relative importance among the elements in a priority hierarchy of transmitter power or coverage area?
What should be the appropriate power and coverage combination for each type of low-power undertaking?
Four briefs addressed these questions. There was a consensus among them for giving priority status to conventional stations and for limiting commercial one-dimensional services to very low-power operation.
One submission considered that, in remote areas, conventional commercial broadcasters should be allowed to use Low-Power AM (LPAM) or Low-Power FM (LPFM) frequencies because there would be no need to use more power to reach the potential audience.
d)Duration of Service
The Commission asked:
What should be the relative importance among the elements in a priority hierarchy of duration of service?
Two briefs addressed the issue. The NCRA considered that not-for-profit broadcasters should not be penalized if they offered less than full-time service. The CAB, however, maintained that duration of service should be considered on a case-by-case basis in areas where channels are scarce.
e)Availability of Alternate Means of Delivery:
The Commission asked:
What should be the relative importance in a priority hierarchy of the availability of alternative means of delivery?
The briefs that addressed this issue argued that one-dimensional, profit-oriented services should be required to demonstrate that low-power AM and FM radio frequencies are the only possible means of providing the type of service they propose.

C.The Commission's Policy -- Introduction of a Priority System for Licensing Low-Power Radio

The submissions revealed a consensus on the need to establish a priority system as part of a licensing policy. Such a system would give priority to conventional broadcasting services over one-dimensional services, such as those providing tourist information services, and would apply in areas where there is a scarcity of frequencies. The Commission also considers that not-for-profit

stations should reasonably be accorded precedence.
The Commission therefore establishes the following priority system for the licensing of low-power radio undertakings. **The priority system will generally be applied in areas that the Commission has previously identified as those where available frequencies are scarce on the basis of the projected FM frequency requirements of the CBC, private commercial, educational, community and campus broadcasters. These areas are Vancouver/Victoria, Montreal and surrounding area and Southern Ontario. When considering competing applications for the use of low-power frequencies in these areas where such frequencies are scarce, the Commission will generally give priority to conventional broadcasting services (Priority A) over one-dimensional services (Priority B). Moreover, the Commission will generally attach to the various types of services falling within the two priority groupings a priority that corresponds to their relative ranking within each, as set out below:**
Priority A Services:
1)Originating conventional not-for-profit radio services (e.g. community, campus and native);
2)Originating conventional for-profit radio services (private commercial broadcasters, including ethnic);
3)Rebroadcasting transmitters of local stations rebroadcasting within the station's contour;
4)Rebroadcasting transmitters of distant signals (the CBC will have priority within this sub-group of Priority A services).
Priority B Services:
1)Not-for-profit public information services (e.g. traffic or weather information services);
2)Commercial announcement services.
The following three factors may also be considered by the Commission in its evaluation of competing applications of the same type for the same low-power frequency. The Commission realizes, however, that the relative importance of each of these factors may vary depending on the type of service proposed. Such importance will be assessed on a case-by-case basis. The correlation between power and potential audience: Generally speaking the Commission will consider that the larger the audience served by the undertaking, the higher the priority it should be accorded.
The duration of service: the longer a proposed service is to be on the air (whether on a daily, weekly, monthly or yearly basis), the more valuable it generally will be deemed to be.
The availability of alternate means of delivery: non-conventional services that can be delivered effectively only through use of a broadcasting frequency will generally be considered to have a higher priority than those that can be provided by alternate means, such as through the use of roadside signs or newspapers.
Subsidiary Issues
1. Application of the Priority System
In its public notice, the Commission asked:
Should a priority system be applied at the time of the licensing decision, at the time of renewal, or at the time the undertaking with the higher priority goes on air?
Only the CAB responded to this question. It considered that it would be neither practicable nor desirable for the Commission to alter the priority status of operations that have already been licensed. It therefore recommended that, once licensed, a station should not have to change frequency or be obliged to cease operation because of the licensing of another undertaking that, under Commission policy, might have had a higher priority.
The Commission agrees. **It will therefore apply the priority system only in assessing new applications competing for use of the same frequency. 2.Calls and Market Criteria**
The Commission asked the following questions:
Should the Commission issue a call for competing applications in the case of applications for low-power undertakings, and, if not generally, under what circumstances?
Should [the] process and criteria [in Public Notice CRTC 1991-74] be applied to low-power undertakings?
The CAB and the NCRA addressed these issues and expressed differing views.
On the question of whether there should be calls for competing applications, the NCRA considered that there is no need to issue a call for a drop-in frequency unless two or more applications proposing not-for-profit services, and seeking use of the same frequency, are filed with the Commission. Further, it recommended that commercial broadcasters and non-conventional services should be excluded from competing for an identified drop-in frequency with

applicants proposing not-for-profit operations.
The CAB, for its part, however, considered that whenever any application is received for a LPFM in a geographic area where frequencies are scarce, the Commission should issue a call for competing applications.
With respect to the Radio Market Criteria, the NCRA considered the criteria should not be applied in assessing applications by those proposing new low-power undertakings because the criteria are not relevant to not-for-profit broadcasters. The NCRA added, however, that if the Commission wished to establish criteria for low-power community radio undertakings, a limit based on population should be considered (e.g. no more than one such undertaking should be licensed for each 100,000 residents of an area). The CAB argued that those seeking licences for ethnic undertakings, or for undertakings that would be not-for-profit, should be subject to the Radio Market Criteria because they are allowed to broadcast advertising.
In light of its policy determination to apply a priority system in assessing competing applications proposing new, low-power radio services, and only in relationship to each other, it will be necessary for the Commission to issue a call upon receipt of any completed application. It further considers that its decision to grant the highest priority to not-for-profit undertakings should alleviate concerns expressed by the NCRA that those seeking licences to operate such undertakings would otherwise face a disadvantage in competing with commercial broadcasters for low-power frequencies.
The Commission will therefore issue calls for competing applications upon receipt of any and all complete applications for licences to carry on low-power undertakings in areas where frequencies are scarce (as identified above). The receipt of applications proposing a service in areas where frequencies are not scarce will not trigger such a call.
The Commission recognizes the concerns expressed by the CAB about the impact of new low-power stations on the revenues of commercial radio stations. It notes, however, that the radio market criteria have not been applied to not-for-profit stations in the past, and it does not wish to implement a policy that would unnecessarily inhibit the development of this sector of radio broadcasting. The Commission is also satisfied that the impact of any new not-for-profit, low-power stations on the revenues of commercial radio stations would be limited. **The Commission will therefore apply the radio market criteria only to new commercial (for-profit) low-power radio undertakings; non-conventional services will be excluded from application of the market criteria.**

3.Rebroadcasters

The Commission asked:
Should the Commission continue to consider applications for the use of low-power transmitters to rebroadcast the programming of existing undertakings? Under what circumstances should it do so, for instance, in cases where technical problems limit coverage within an undertaking's licensed service area?
Three submissions addressed the issue.
Both the CBC and the CAB considered that the Commission should continue to authorize the licensees of existing stations to establish rebroadcasting transmitters, and that a lower priority should be given to rebroadcasters of distant signals than to rebroadcasters of local stations proposed for the purpose of solving coverage problems.
The NCRA considered that, as a rule, new rebroadcaster transmitters of existing commercial services should not be permitted, other than in mountainous areas where the applicant is licensed to serve a region or a number of small communities. In such cases, the applicant should have to demonstrate that there is no alternative but to install a rebroadcasting transmitter to provide its service and that there are other frequencies available for use in the area to allow the establishment of future not-for-profit stations.
The Commission supports the view that rebroadcasters of local services designed to alleviate coverage difficulties should have a higher priority than rebroadcasting transmitters for non-local services, and this has been incorporated into the priority system set out earlier in this document.

4.Applications for Multiple Low-Power Frequencies for Non-Conventional Use

In its policy proposal, the Commission described a situation where one or more applicants might propose to employ several low-power frequencies for non-conventional use, thereby exhausting the frequencies available in a particular area. It then posed the following question:
How could the relative merits of the types of proposals described above be assessed in a priority system?
The CAB addressed this matter and suggested that there should not be a separate process developed for such a situation.

The Commission agrees, and will deal with such applications using the priority system set out earlier. To the extent that the applications have features not contemplated in this notice, the Commission will proceed on a case-by-case basis.

5.Competitive Non-Conventional Services

In its public notice, the Commission asked:

Should the Commission's licensing policy for low-power radio preclude the licensing of competitive, non-conventional services?

Three submissions addressed the issue.

The NCRA and the licensee of a campus radio station considered that the Commission should not grant licences to competitive, non-conventional services, while the CAB indicated that such licensing should be permitted if the applicant can demonstrate both a need and commercial viability.

The Commission appreciates that over-licensing of competitive non-conventional services in areas where frequencies are scarce could lead to congestion of the radio band and hinder the future development of conventional low-power radio services. However, in areas where there is a relative abundance of frequencies, there would seem to be little reason to exclude, out of hand, the possibility of competitive non-conventional services. The Commission further notes that non-conventional services will be given a lower priority than conventional services under the system outlined earlier in this document.

The Commission will therefore consider the licensing of competitive non-conventional commercial services on a case-by-case basis. In areas where there is a scarcity of frequencies, the priority system outlined earlier in this document will be applied.

6.Use of the Extended AM band

The Commission asked:

To what extent might some of the services currently being contemplated for low-power undertakings be accommodated on the newly extended upper portion of the AM band?

The NCRA, the CBC and the CAB agreed that some non-conventional public announcement services, such as those that provide information to tourists and motorists, should be accommodated on the extended AM band.

While noting the position expressed in these submissions, the Commission considers that it is too early to gauge the eventual demand for use of the extended portion of the AM band. It is possible that the extended AM band will represent a better alternative for a conventional broadcaster than use of LPAM or LPFM facilities. **The Commission therefore considers it premature to support the move of some non-conventional services to the extended AM band. It will delay announcement of any determination on this question until an evaluation of the potential impact of such a move is completed.7. Application of the Radio Regulations, 1986 (the regulations) and/or Promises of Performance**

The Commission asked the following questions:

To what extent should the provisions of the regulations be applicable to the various types of low-power programming undertakings?

To what extent should such low-power undertakings be required to comply with a Promise of Performance?

Five submissions addressed these questions.

The NCRA considered that basic licensing requirements create legitimacy for not-for-profit operations and should thus be maintained, but with enough flexibility for programming to develop.

The NCRA also stated that, should the Commission decide to licence commercial broadcasting undertakings in the LPFM band, they should be subject to all regulations and requirements governing full-power commercial broadcasting.

The CBC recommended that low-power stations broadcasting travel and traffic information announcements as a public service should be relieved of the requirement to maintain logs and recordings of material that is broadcast.

The CAB considered there to be no need to change the requirements for campus/community, instructional and ethnic stations, but that the Commission should allow more flexibility in the case of non-conventional programming undertakings.

One campus radio station licensee urged the Commission to maintain the Promise of Performance and other requirements in the case of competing low-power undertakings.

The Canadian Independent Record Production Association considered that the regulations, especially their requirements for Canadian content, should also apply to low-power undertakings that provide conventional programming services.

The Commission considers that the regulations should apply to the licensees of conventional low-power undertakings since they offer programming that is similar to that of higher-power

conventional stations. It further considers that it is appropriate to require licensees of conventional low-power FM stations to submit Promises of Performance. In the case of non-conventional services, it might not be appropriate to apply all of the regulations or require Promises of Performance. However, the Commission considers that a condition of licence should be attached to the licences of non-conventional stations to ensure that they do not change their programming and begin to offer services identical or similar to those of conventional licensees, without prior Commission approval.

The Commission will therefore generally require licensees of conventional low-power radio stations to adhere to the regulations, unless otherwise specified by condition of licence, and will require the licensees of conventional low-power FM stations to file Promises of Performance. The question of whether to require adherence to the regulations by the licensees of non-conventional services will be considered on a case-by-case basis. In addition, licensees of non-conventional low-power undertakings will be subject to a condition of licence that defines their programming in such a way as to ensure that they do not change their programming and begin to offer the same services as conventional licensees without Commission approval.

Allan J. Darling
Secretary General

Doc. #: AVI93-95

Search Form
French Version

IEEE TRANSACTIONS ON BROADCASTING, VOL. BC-26, NO. 4, DECEMBER 1980

COVERAGE AND INTERFERENCE FOR SECOND-ADJACENT CHANNEL FM BROADCAST STATIONS

Eldon J. Haakinson
Jean E. Adams
Institute for Telecommunication Sciences
National Telecommunications and Information Administration
Boulder, Colorado, 80303

The coverage and interference of seven Los Angeles area FM broadcast stations are analyzed. The area and population coverages predicted by the FCC methods described in the rules are compared with a method that considers the intervening terrain in some detail. We also show that the criteria for deciding second-adjacent-channel interference threshold of -50 dB (rather than the present -20 dB) adequately protects modern receivers, based on data available in FCC filings and on the performance of these stations. We believe the techniques used in this analysis could be widely applied, and would result in more efficient spectrum use.

INTRODUCTION

The FCC Rules and Regulations require FM broadcast stations which operate on second-adjacent-channels (400 kHz frequency separation) to have their transmitters separated from each other by at least a minimum distance. For example, the rules require second-adjacent-channel Class A and Class B stations to be separated by 40 mi[1] (64.4 km). In developing the rules, the FCC assumed:

1) full facility stations for all assignments,

2) average terrain conditions to compute coverage and interference, and

3) existence of interference to receivers when the second adjacent channel field strength exceeds the desired signal field strength by 20 dB (i.e., a signal-to-interference ratio (S/I) = -20 dB).

In reality, these assumptions are not always true. We believe that:

1) most stations have operating characteristics that differ from the FCC's definition of a "full facility" station (see Table 1),

2) actual terrain features affect both signal coverage and interference, and

3) modern good-quality FM broadcast receivers can maintain a 30 dB audio signal-to-interference ratio even when second-adjacent (i.e. alternate) channel interference is 50 dB or more above the desired signal.[2]

Table 1. Full Facility or Maximum Facility Parameters for FM Broadcast stations[1].

	Effective radiated power (ERP), kW	Height above average terrain (HAAT), ft (meters)
Class A	3	300 (91.4)
Class B	50	1000 (304.8)
Class C	100	2000 (609.6)

The Los Angeles basin FM broadcast market provides an important example of an area where second-adjacent-channel stations currently operate with mileage separations less than those specified by the FCC rules. We will consider an area within 40 mi (64.4 km) of Mount Wilson, the site of many Los Angeles Class B transmitters. Within this area, we have identified 46 Class A and Class B stations that are in the FCC's 1979 FM broadcast data base. Of these 46 stations, there are 28 that currently have transmitters operating on a second-adjacent channel of another station and within the minimum separation distance of the FCC rules.* If both the FCC's current interference criterion and the FCC's methods for computing coverage and interference are correct, then there should be a considerable amount of interference among these 28 stations. We talked to several of the station managers whose stations should be experiencing interference, according to the FCC rules. However, none of the station managers we contacted knew of any interference problems nor had they received any complaints from home listeners within their coverage areas. We realize that the consumers' interpretation of interference is subjective. It is possible that consumers:

1. do not recognize the interference as coming from a second-adjacent-channel station, but have learned to tolerate it, or

2. can neither recognize the interference nor tolerate it, so they have moved to a different part of the FM band, or

3. have receivers that sufficiently reject the second-adjacent-channel interference.

Because of a lack of reported interference, we believe the third situation to be more likely than the first two.

COVERAGE COMPARISONS

In this paper, we will demonstrate two different methods for computing signal coverage and interference; in addition, we will use two different thresholds for receiver interference. From the 28 second-adjacent-channel Los Angeles basin FM assignments we will consider seven whose antenna locations are shown in Figure 1 and whose station operating characteristics are given in Table 2. FM radio stations KNXFM and KMET are Class B stations with their antennas located on or near Mount Wilson whose height is about 5600 ft (1706.9 m) above mean sea level (AMSL). Radio station KZLA is also a Class B station with its antenna located near Flint Peak whose height is about 1600 ft (487.7 m) AMSL. Station KNTF is a Class A station serving Ontario;

*These stations were evidently in operation (grandfathered) when the rules were implemented.

0018-9316/80/0900-0133$00.75

Table 2. Characteristics of Los Angeles Area FM Stations on Channels 226 through 234

Channel	Call Sign	Class	Principal City	ERP (kw)	HAAT (ft)	Distance to Closest Second-Adjacent-Channel Transmitter (mi)
226	KNXFM	B	Los Angeles	54	3040	28.8 (KNTF)
228	KNTF	A	Ontario	3	-165	28.8 (KNXFM)
228	KFOX	A	Redondo Beach	3	175	21.7 (KZLA)
230	KZLA	B	Los Angeles	49	720	10.8 (KGIL)
232	KGIL	A	San Fernando	3	-180	18.0 (KZLA)
232	KORJ	A	Garden Grove	3	245	26.5 (KZLA)
234	KMET	B	Los Angeles	58	2830	22.0 (KGIL)

its antenna is located at about 800 ft (243.8 m) AMSL in the foot hills to the north of Ontario. Station KFOX, a Class A station serving Redondo Beach has its antenna located near the ocean on the side of a 450 ft (137.2 m) AMSL hill south east of Redondo Beach. Station KGIL-FM, Class A, serves San Fernando and has its antenna located almost in the center of the San Fernando valley. Finally, KORJ, another Class A station, serves Garden Grove; its antenna is located in Garden Grove at about 100 ft (30.5 m) AMSL. None of these stations uses a directional antenna in the horizontal plane to modify their coverage.

In the comparisons that follow, we will compute the station's field strength contours by:

1) using the traditional FCC methods[1], and

2) using an improved method that includes terrain effects.[3]

Also, we will compute the receiver's interference by:

1) using the present second-adjacent-channel interference threshold of S/I = -20 dB, and

2) using a more realistic second-adjacent-channel interference threshold of S/I = -50 dB for a good-quality receiver.

The minimum field strengths to be protected from interference have been defined by the FCC as the field strengths available at 40 mi (64.4 km) from a full facility Class B station operating over average terrain and at 15 mi (24.1 km) from a full-facility Class A station[1]. The FCC has propagation charts for the FM broadcast band that are used to compute field strengths from desired and interfering FM stations. The charts give field strengths calculated for:

1. desired stations at 50 percent of the locations and 50 percent of the time, and

2. interfering stations at 50 percent of the locations and 10 percent of the time.

From the FCC propagation charts, the field strengths at the specified distances are equal to 55 dBμV/m from full-facility Class B stations and 59 dBμV/m from full-facility Class A stations.

The field strength from a second-adjacent-channel station is not to exceed the desired field strength anywhere within the protected contour by more than 20 dB; i.e., the second-adjacent-channel interference threshold is a signal-to-interference (S/I) ratio equal to -20 dB. Thus, whenever the signal from the undesired second-adjacent-channel station is 20 dB more than that of the desired station, interference is supposed to occur in the receiver. However, recent receiver data[2] have become available that indicate a -50 dB S/I to be a more reasonable threshold.

Figure 2 compares the different methods of predicting the coverage of station KNXFM and the interference from second-adjacent-channel assignments KFOX and KNTF. In the plots, V is the location of the desired or Victim station and I is the location of an interfering station operating on the second-adjacent channel. Figure 2a shows the 55 dBμV/m coverage (solid contour line) of KNXFM and a shaded region of interference within the contour predicted using the regulation FCC methods and an interference threshold of S/I = -20 dB. The total computed area and population within the coverage contour and interference region are given on the plots. Figure 2b shows the effect of changing the interference threshold to S/I = -50 dB. This is closer to the level that we believe most receivers in use today can tolerate without experiencing significant degradation beyond that implied by the 1962 rules.

In Figure 2c, the coverage of KNXFM has been plotted using propagation prediction methods that take into account the terrain in different directions around the station, but the interference threshold is kept at S/I = -20 dB. In Figure 2d, the coverage using the improved method is plotted along with the area of interference assuming a S/I = -50 dB threshold. As can be seen from this figure, the terrain contours affect the coverage of the station, and the S/I = -50 dB threshold more closely agrees with the lack of reports of poor quality service from the area stations.

In Figure 3, we have plotted the comparisons of the 55 dBμV/m coverage of KZLA and interference from stations near it. Station KZLA is located in a region of low elevation relative to KNXFM of the previous plots. Consequently, its coverage area is affected more by the hills and mountains that surround it. In (a) of Figure 3 the coverage is determined by the FCC propagation curves. Station KZLA has 4 stations within 40 mi (64.4 km) of it

operating on second adjacent channels. These stations are shown in the plots (as I's) and create predicted interference shown as shaded areas. In (b) of Figure 3, the interference threshold was changed to S/I = -50 dB which reduced the area of interference and the predicted number of people affected from close to four million to around 150,000.

Figure 3c shows the effects of intervening terrain on the coverage and interference. Finally, in Figure 3d, terrain-dependent prediction methods are combined with a lower interference threshold to present what we believe to be more accurate plot of coverage and interference for KZLA.

As an example of a low power station, we have plotted coverage of KGIL, which is located in the San Fernando Valley. This station has two second-adjacent-channel stations (KZLA and KMET) operating within 40 mi (64.4 km) of its antenna. Figure 4 shows KGIL coverage and interference regions. In (c) and (d) of Figure 4, it is evident that KGIL covers the valley region quite well. This was determined by comparing the coverage contour with a topographic map of the area. Because of the reduced coverage due to the combination of power, antenna height, and terrain shielding, there is little interference with the two second-adjacent-channel stations predicted.

CONCLUSIONS AND RECOMMENDATIONS

This paper has two conclusions:

1) current FCC second-adjacent-channel separation requirements for FM broadcast stations are overly protective, and

2) terrain-dependent algorithms more accurately predict the coverage of FM broadcast signals and interference than present FCC methods. We have demonstrated the effects on the predicted areas and populations receiving coverage and interference when a) the second-adjacent-channel interference thresholds are changed to more realistic values, and b) the propagation algorithms are changed to include terrain effects.

We recommend that measurements be made on a wide variety of FM receivers to substantiate suitable receiver interference thresholds. We also recommend that a terrain-dependent method be developed as a replacement for the present FCC method for computing the areas and populations covered by stations.

The adoption of these recommendations may lead to revised planning criteria for FM that wuld allow more FM stations in major markets with no sacrifice in quality of FM performance.

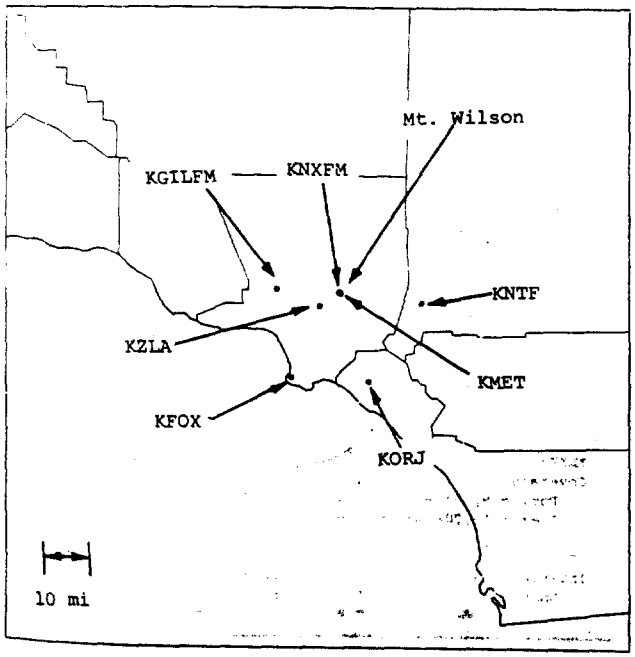

Figure 1. Los Angeles basin FM broadcast assignments on channels 226 to 234.

REFERENCES

1. Federal Communications Commission, Revision of FM Broadcast Rules, Docket No. 14185, First Report and Order, 1962.

2. Quadracast Systems Inc., Comments to the FCC Further Notice of Inquiry on Quadraphonic Broadcasting, FCC Docket 21310, 1979.

3. G.A. Hufford, "Techniques for the Evaluation of Proposed TV Drop-Ins", Department of Commerce, OT Report 77-112, 1977. (Available from Department of Commerce, NTIS Access. No. PB271212-AS)

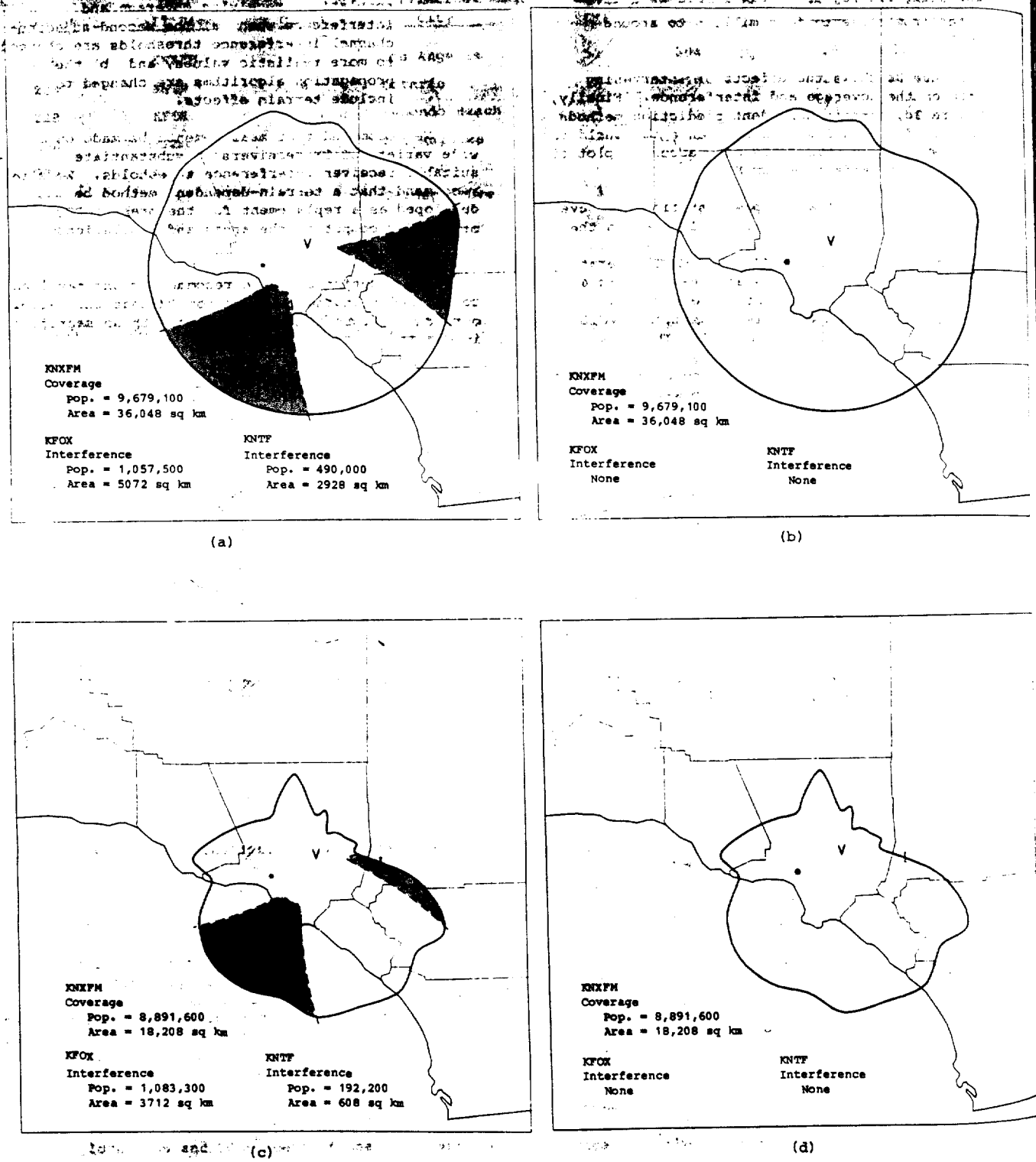

Figure 2. 55 dBμV/m coverage of station KNXFM (solid contour) showing interference areas (shaded). The plots in (a) and (b) were determined using the FCC propagation curves for predicting interference and coverage while (c) and (d) were determined using the terrain sensitive ITS propagation model. The plots in (a) and (c) use a S/I = -20 dB interference threshold while (b) and (d) use a S/I = -50 dB threshold.

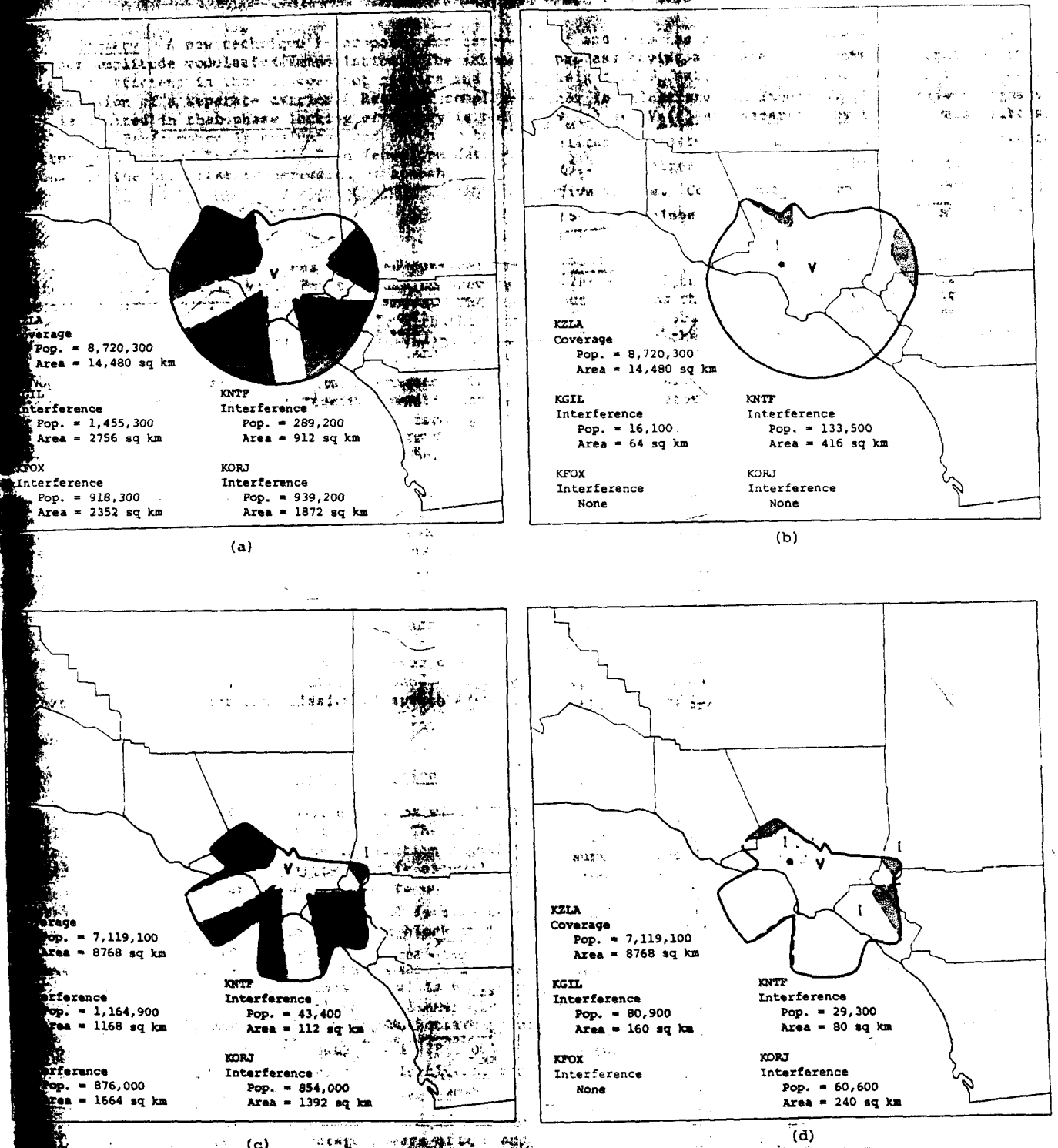

Figure 3. 55 dBμV/m coverage of station KZLA (solid contour) showing interference areas (shaded). The plots in (a) and (b) were determined using the FCC propagation curves for predicting interference and coverage while (c) and (d) were determined using the terrain sensitive ITS propagation model. The plots in (a) and (c) use a S/I = -20 dB interference threshold while (b) and (d) use a S/I = -50 dB threshold.

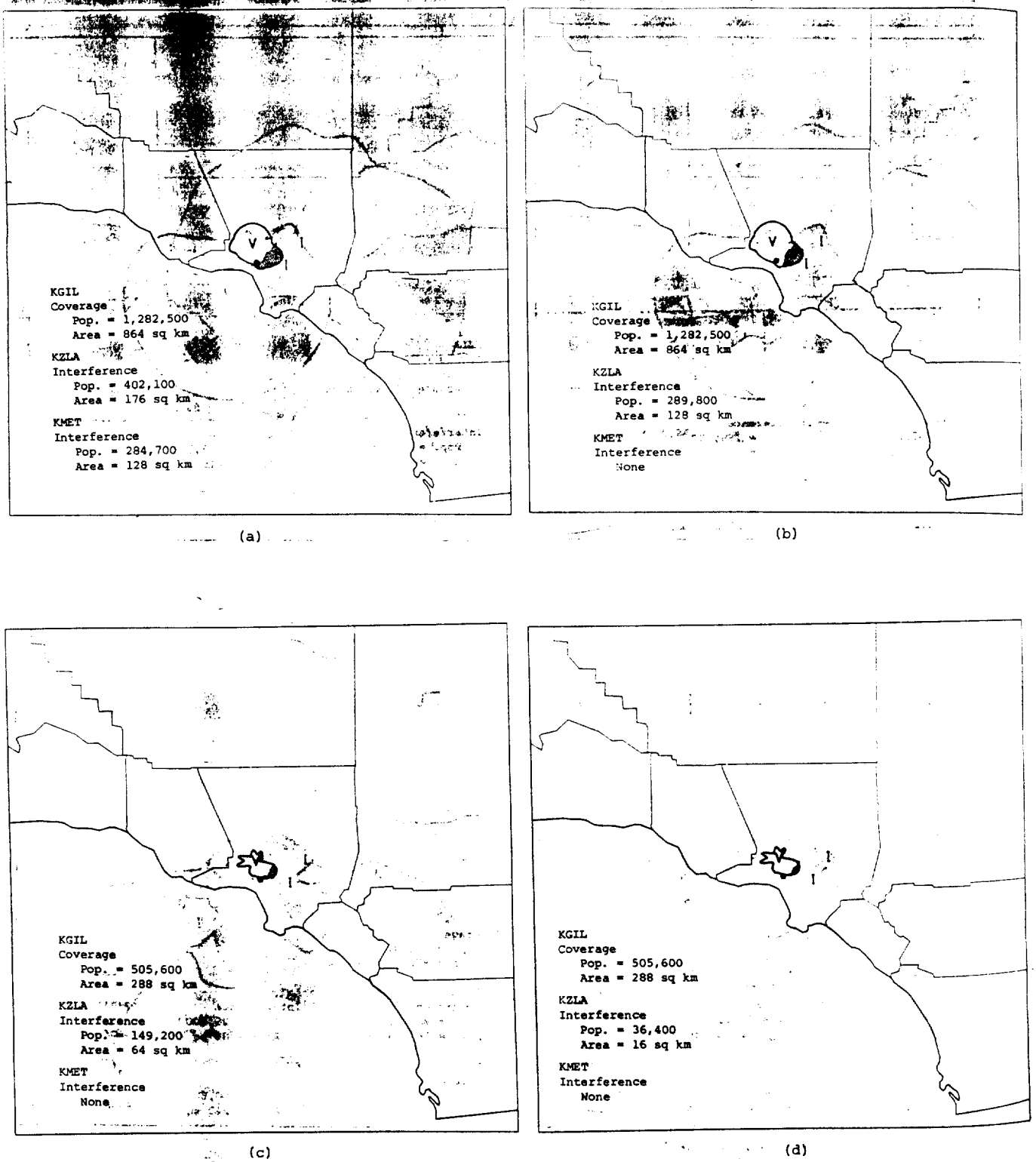

Figure 4. 55 dBμV/m coverage of station KGIL-FM (solid contour) showing interference areas (shaded). The plots in (a) and (b) were determined using the FCC propagation curves for predicting interference and coverage while (c) and (d) were determined using the terrain sensitive ITS propagation model. The plots in (a) and (c) use a S/I = -20 dB interference threshold while (b) and (d) use a S/I = -50 dB threshold.

PUBLIC NOTICE

FEDERAL COMMUNICATIONS COMMISSION
1919 M STREET, N.W.
WASHINGTON, D.C. 20554

FCC 97-275

News media information 202/418-0500 Fax-On-Demand 202/418-2830 internet: http://www.fcc.gov ftp.fcc.gov

Released: August 5, 1997

FEDERAL-STATE JOINT BOARD ON SEPARATIONS TO HOLD OPEN MEETING AT 10:00 A.M. ON FRIDAY, AUGUST 8, 1997

CC Docket No. 80-286

The Federal-State Joint Board on Separations will hold an open meeting on Friday August 8, 1997, beginning at 10:00 a.m., in Room 856 at 1919 M Street, N.W., Washington, DC. The Separations Joint Board will hear from two panels of experts who will discuss approaches for separations reform in light of the current telecommunications environment. The panel topics will be:

Panel 1: **Debate - Is Jurisdictional Separations Still Legally Required, in Light of the Numerous Regulatory and Technological Changes Since Smith v. Illinois Bell?**

Panel 2: **Implications for Jurisdictional Separations of Changes in Access Charges and Universal Service Support Mechanisms.**

Action by the Commission on August 4, 1997, Chairman Hundt and Commissioner's Quello, Ness, and Chong.

Common Carrier Contacts: Connie Chapman, 202-418-0885, or Debbie Byrd, 202-418-0834.

-FCC-

Before the
Federal Communications Co
Washington, D.C. 205

In the Matter of	)
	)
Grandfathered Short-Spaced	)
FM Stations	)

REPORT AND ORDE

Adopted: August 4, 1997

By the Commission:

TABLE OF CONTENTS

INTRODUCTION

1. In the *Notice of Proposed Rulemaking* ("*Notice*") in this proceeding,[1] we proposed clarifications and revisions to the rules for pre-1964 grandfathered short-spaced FM radio broadcast stations to streamline the current method of proposing modifications to existing facilities.[2] The *Notice* also responded to a "Joint Petition" for rule making filed February 1, 1991, by the firms of Hatfield and Dawson; du Treil, Lundin and Rackley, Inc.; and Cohen, Dippell and Everist, P.C., ("Joint Petitioners"), proposing similar changes. In the *Notice*, we proposed revisions to our broadcast regulations to re-examine 47 C.F.R. § 73.213(a), which currently sets forth how stations authorized prior to November 16, 1964, that did not meet the separation distances required by 47 C.F.R. § 73.207, and have remained short-spaced since that time, may modify operating facilities. The *Notice* proposed changing three specific aspects of Section 73.213(a). The rules adopted in this *Order* permit the utmost in flexibility for this class of grandfathered FM stations while maintaining the technical integrity of the FM band by preventing increased interference.

2. The proposals in the *Notice* generally received widespread support in the 29 comments and 22 reply comments received.[3] The Joint Petitioners generally support the rule changes for each Proposal and "applaud the Commission's proposal to consider interference areas rather than contour overlap." The Association of Federal Communications Consulting Engineers ("AFCCE") "strongly supports the concept of replacing the awkward and difficult procedure in the present Rule...." The National Association of Broadcasters ("NAB") was generally opposed to the Joint Petitioners' original request. However, the *Notice* differed in several aspects from what the Joint Petitioners' proposed. In response to the *Notice*, NAB stated that the grandfathered short-spaced stations "deserve a long-delayed, but measured, opportunity to modify and improve their own facilities," and that "...there are new dynamics in the radio marketplace, brought about by the Commission's newly-revised ownership rules. Under this revised regulatory regime, group owners and independent licensees have new reason to review their current facilities status under FCC rules." The majority of the remaining commenters either support or otherwise address specific portions of the *Notice*.

SUMMARY OF NOTICE PROPOSALS

3. On May 23, 1996 we initiated this proceeding through the adoption of the *Notice* setting forth the proposed rule changes, which were intended to eliminate unnecessary regulations and provide grandfathered stations with increased flexibility to change transmitter location or modify their existing facilities. Specifically, we proposed to:

(1) replace the current Section 73.213(a) restriction on extending the 1 mV/m contour with straight-forward interference showings based on the desired to undesired signal strength ratio ("D/U ratio") method for grandfathered co-channel and first-adjacent channel short-spaced stations;

[1] *See Grandfathered Short-Spaced FM Stations in MM Docket 96-120, 11 FCC Rcd 7245, 61 Fed. Reg. 33,474 (June 14, 1996).*

[2] Throughout this order, the term "grandfathered stations" refers only to those FM stations at locations authorized prior to November 16, 1964, that did not meet the separation distances required by the later adopted Section 73.207 and have remained continuously short-spaced since that time.

[3] Appendix B contains a list of commenters and reply commenters.

(2) eliminate both the second- and third-adjacent channel sp
short-spaced stations; and,

(3) eliminate the need to obtain agreements by grandfa
facilities.

RESOLUTION OF INDIVIDUAL PR

Proposal 1.

4. ***Replace the current Section 73.213(a) restriction on e
interference showings based on the desired-to-undesired signal stre
grandfathered co-channel and first-adjacent channel short-spaced*** revise Section 73.213(a) to permit co-channel and first-adjacent chann to change transmitter location or station facilities, based on a show criteria:

(1) there must be no increase in either the total predicted population;[4]

(2) there must be no increase in interference caused b grandfathered short-spaced station; and,

(3) applicants must demonstrate that any new area predic interference has adequate service remaining. Adequate service five aural services.[5]

5. The areas of interference are to be determined using the strength ratio analysis and the standard F(50,50) and F(50,10) propa 73.333 of our rules. The *Notice* proposed that co-channel interferenc locations within the desired station's coverage contour where the un strength exceeds a value 20 dB below the desired (protected) F(50,50) f interference would be predicted to exist at all locations within the desir the undesired (interfering) F(50,10) field strength exceeds a value 6 F(50,50) field strength. The *Notice* also sought comment on an alter both interference caused and interference received to be individually

[4] Total predicted interference is the sum of all interference caused and rece

[5] Aural services consist of AM broadcast stations and FM broadcast stati Order, *Bay City, Brenham, Cameron, Centerville, Edna, Ganado, Giddings, Matagorda, New Ulm, Point Comfort, Rollingwood, Rosenberg, and Seadrift, Te*

Comments & Discussion:

6. *General:* Of the parties providing initial and reply comments on this proposal, most agree that the current rule is too vague and restrictive, and that it should be replaced with an equitable rule that is easily administered. The rule we adopt herein accomplishes this result. It allows maximum flexibility for grandfathered stations, while maintaining or reducing interference, and provides a minimal filing burden on applicants, accompanied by a minimal processing burden on Commission staff. Our new rule provides greater flexibility to stations now thwarted by the current "no extension of the 1 mV/m contour" rule in Section 73.213(a). The current rule in Section 73.213(a) has been proven to be overly restrictive, ineffective in controlling interference, and difficult to administer. The requirements set forth in the new rule section will potentially decrease areas of co-channel and first-adjacent channel interference, and lead to more efficient use of the FM broadcast spectrum. Several commenters suggested slight modifications to the original Proposal 1 as presented in the *Notice*. We discuss those suggestions below.

7. *Contour overlap vs. predicted interference.* AFCCE and other commenters generally support replacing the current standard in Section 73.213(a) with a requirement based on interference ratios. We concur that the ratio method is the most appropriate method of determining areas of interference for 1964 grandfathered stations. We do not agree with Mullaney Engineering, Inc.'s ("Mullaney") assertion that the grandfathered rules should be based upon contour overlap rather than interference predictions. Contour overlap is an effective method to demonstrate compliance with rules aimed at preventing interference, since lack of contour overlap is sufficient to demonstrate a lack of interference. However, it is not effective in controlling interference when prohibited overlap already exists.[6] We remain convinced that the practical effect on the listening public of interference between two short-spaced stations is best evaluated in terms of interference (D/U ratio) rather than overlap.[7] Therefore, we will require that all interference showings for Proposal 1 be analyzed using the desired-to-undesired (D/U) signal strength ratio analysis.

8. Mullaney also suggests that we protect all classes of grandfathered stations to the 1 mV/m (60 dBu) contour. The spacing requirements set forth in Section 73.207 generally provide protection to the 54 dBu contour for Class B stations, to the 57 dBu contour for Class B1 stations, and to the 60 dBu contour for all other classes of stations. In addition, the Commission reaffirmed use of the 54 dBu contour and the 57 dBu contour as the protected contours for all Class B and Class B1 commercial stations in MM Docket 87-121, respectively.[8] Failure to provide this protection to Class B and Class B1 commercial stations could result in a disruption of service for some Class B and B1 stations. It would also result in a grandfathered short-spaced station being protected to two different contours: the 60 dBu contour with respect to all grandfathered short-spaced stations; and the 54 dBu or 57 dBu contour with respect to all other short-spaced station. This would add unnecessary confusion and complexity with no apparent benefit. Therefore we will not implement this suggestion.

[6] By way of background, 47 C.F.R. § 73.215 is typically used by non-grandfathered commercial stations that propose short-spaced facilities. This rule section requires the complete absence of prohibited contour overlap, thereby preventing the creation of new areas of interference. However, unlike the proposed Section 73.213(a), Section 73.215 is rarely used by stations currently causing interference.

[7] *See* Memorandum Opinion and Order, *Board of Education of the City of Atlanta*, 11 FCC Rcd 7763, Footnote 1.

[8] *See* Report and Order, *Amendment of Part 73 of the Commission's Rules to Permit Short-Spaced FM Station Assignments by using Directional Antennas*, 4 FCC Rcd 1681, 1687 (1989).

9. *Interference areas.* The Joint Petitioners agree that ir consideration for co-channel and first-adjacent channel modification not be increased. However, several commenters felt that the interf in the *Notice* should be modified. The Joint Petitioners and AFCC increases in received interference if it can be shown that there is no Communications Technologies, Inc. ("CTI") believes that considerin contour exceeds the licensed 60 dBu contour as an area of receive station will most likely achieve an increase in service in that directio consideration should be that of interference caused, not interferenc

10. Our underlying presumption is that any increase in tota is not in the public interest. Interference caused and interference rec coin. Both represent an inefficient use of the spectrum. Thus, we re interference received beyond the current service contour of a propos there is a need for some flexibility. For this reason, we do not received, *provided it is offset by a decrease in interference caused.* interest objective of maintaining or reducing the total amount of interf grandfathered short-spaced stations. There was no support for the *Notice* of requiring interference caused and interference received to be and we reject that alternative. *See Notice*, para. 16.

11. Z Spanish Radio Network, Inc. ("Z Spanish") suggests caused should be permitted when a net reduction in interference o grandfathered stations to an increase in interference, without offsetting stations to increase interference caused would result in diminished se degradation of the overall quality of FM service. Therefore, we w interference caused.

12. The *Notice* proposed that co-channel or first-adjacent cha demonstrate that any areas previously receiving interference-free servi of interference have at least five remaining AM and/or FM static Petitioners believe that demonstration of adequate remaining service interference areas are small and most grandfathered stations are in well generally agree that it is likely that several other broadcast service stations, we nonetheless note that the areas of co-channel and first-adjac In the Northeastern United States and California, there are several co- grandfathered short-spaced stations that are predicted to cause or rece of 100 square kilometers. A lateral move by such a station could pot in populated areas previously receiving interference-free service. By re can assure a minimal effect on service to the public when interference i As most areas are likely to be well served, as noted by the commenters, not be onerous. Therefore, we will require that any application causing that previously received interference-free service must demonstrate the aural broadcast services within that area.

13. Barnstable Broadcasting, Inc. ("Barnstable") suggests that an a modification that would potentially extend interference toward ano formal notice of the proposed modification..." to the effected station. W There is no such requirement for applicants filing under our current participation by additional parties is necessary to reach a decision on wh

the proposed rules should be granted. Modification applications are all given file numbers, entered into our databases, and released on public notice indicating the receipt of the application. This provides sufficient notice of the filing of an application. Generally there will be sufficient time between the date of the public notice and the grant of the application to permit the filing of informal objections. Therefore, we will not require stations to provide notification to a potentially affected station.

14. *Population considerations.* Mullaney suggests that less emphasis should be placed on areas of interference and more emphasis placed on the population affected by the interference. He asserts that in many instances, the areas of concern may include swamps, marshes, or national forest. In opposition to this view, AFCCE does not favor including a population consideration into the rule. AFCCE states that the present rule does not require any such consideration, and believes its inclusion in any adopted rule would be an "additional complication." However, as stated above, our primary concern in the proceeding is providing flexibility while maintaining the technical integrity of the FM band. Failure to consider the effect of proposals on area and population would be imprudent. Each year, we receive numerous applications proposing transmitter site changes by stations adjusting to population migrations in areas around their service contours. By maintaining or reducing areas and populations receiving interference, we can continue to promote an efficient broadcast service. Therefore, we will require applicants under Proposal 1 to include exhibits based on interference areas and the associated populations.

15. CTI recommends that we suggest a specific methodology to be followed when calculating the population affected by interference. We will continue to accept the widely used uniform distribution methodology set forth in 47 C.F.R. § 73.525(e) for calculating population.[9] In addition, because the Census Bureau recognizes the Block Centroid Method as a more accurate calculation method, we will also accept this method.[10] In resolving disputes, we will rely on the most accurate method presented.

16. *Additional suggestions.* CTI suggests that any grandfathered applicant proposing to modify its facilities or change transmitter site within 500 feet of its authorized site, should not be required to submit an interference analysis, assuming the average contour distance does not exceed that of its licensed facility. CTI believes that this would provide latitude for site corrections anticipated from the new tower registration procedures. We do not believe that such a rule would be appropriate. First, CTI's proposal would contradict our conclusion in Appendix C of the *Report and Order, In the Matter of Streamlining the Commission's Antenna Structure Clearance Procedure*, 11 FCC Rcd 4272 (1996), 61 FR 4359 (1996). Appendix C stated that any modification of coordinates necessary as a result of the antenna structure registration procedures would require the filing of a construction permit application, regardless of the minimal nature of the change. The appendix also noted that situations requiring a change in operating parameters will be handled on a case-by-case basis. We did not make special exceptions for any group of stations correcting authorized parameters. Additionally, our experience in dealing with grandfathered applicants shows that modifications usually entail changes in several technical parameters and seldom

[9] Section 73.525(e) specifically states that "the number of persons contained within the predicted interference area will be based on data contained in the most recently published U.S. Census of Population and will be determined by plotting the predicted interference area on a County Subdivision Map of the state published for the Census, and totalling the number of persons in each County Subdivision ... contained within the predicted interference area."

[10] Section 73.525(e)(2)(iv) states that "[a]t the option of either the NCE-FM applicant or an affected TV Channel station which provides the appropriate analysis, more detailed population data may be used." We note that the U.S. Census Bureau has verified that the block centroid retrieval methodology is a more accurate means of determining population within a given area than the uniform distribution method. *See* the October 9, 1992 *Letter from Chief, Audio Services Division to Larry H. Will*, reference No. 1800B3-ESR.

involve only a relocation within 500 ft. of the previously license
rule CTI proposes would cause confusion and unduly complicate
We will, however, routinely grant requests for waiver of the inter
in Sections 73.213(a)(1) and 73.213(a)(2) on a case-by-case basis
500 ft (152 meters) of the previously licensed site where no unu

17. Z Spanish generally supports Proposal 1, adding that
the standard contour prediction methods should be available when
evaluation. We do not characterize alternative contour predictio
we agree that alternative contour prediction methods should be use
the Commission allows the use of alternate prediction methods pr
demonstrate adequate coverage of the community of license, or to
would be within the principal community contour (70 dBu). Ho
from full-service stations for the purpose of demonstrating a l
complicate the rule that we are attempting to simplify, with lit
prediction method calculations is resource-intensive and requir
supplemental studies often leads to disputes involving the use of co
with significant processing delays. Therefore, we will not permit a
for interference showings.

18. Finally, several commenters suggest that one or more
extended to other groups of short-spaced stations, such as stations th
of Section 73.207 in Docket 80-90 (1983), or stations short-spaced
or stations short-spaced pursuant to Section 73.215,[12] or even "short
stations.[13] However, these comments are clearly beyond the scop
developing the proposals set forth in the *Notice*, we identified a pa
were defective and difficult to administer. The *Notice* was specific
narrowly defined group of grandfathered stations. We did not addr
short-spacing circumstances. Therefore, we decline to enlarge the sc
pre-1964 grandfathered short-spaced stations.

19. *Conclusion.* We believe that the current rules should
flexibility when co-channel and first-adjacent channel grandfathere
providing this flexibility should not jeopardize another station's abili
we will adopt Proposal 1 as set forth in the *Notice*. All grandfathere
transmitter location and increase or decrease facilities, subject t
maximum power and height requirements set forth in 47 C.F.R. §

[11] Stations covered under rule Sections 73.213(b) & (c) became short-sp
changes after 1964.

[12] Stations that are authorized as "contour protection stations" pursuant
after October 2, 1989, and did so of their own volition. These stations w
overlap would be created with the short-spaced station. *See Amendment o*
Permit Short-Spaced FM Station Assignments by Using Directional Antenn

[13] Section 73.509 does not set forth required spacings for co-channel
educational stations. Rather, it prohibits the overlap of certain pairs of signal
sometimes refer to stations in violation of this rule as "short-spaced."

proposing modifications under the Section 73.213(a) rules adopted herein must document its pre-1964 grandfathered status.

Proposal 2.

20. ***Eliminate both the second- and third-adjacent channel spacing requirements for grandfathered short-spaced stations.*** The *Notice* proposed to revise Section 73.213(a) to remove all spacing requirements for grandfathered second- and third-adjacent channel stations. This proposal would restore the previous Section 73.213 rule used between 1964 and 1987, and would permit second and third-adjacent channel grandfathered stations to implement maximum class facilities, and/or change transmitter site with complete flexibility on second-adjacent channel and third-adjacent channel short-spacings.[14] The *Notice* also proposed, as an alternative, a more restrictive standard that allowed limited flexibility for second and third-adjacent grandfathered short-spaced stations proposing a new transmitter site. The more restrictive standard would not permit prohibited contour overlap if prohibited contour overlap did not already exist.

Comments & Discussion:

21. *General support.* Of the parties providing initial and reply comments on this proposal, most agree that we should completely eliminate second- and third-adjacent spacing requirements for grandfathered stations. The Joint Petitioners fully support the original Proposal 2, and specifically reject the alternative proposal put forth in Paragraph 26 of the *Notice*. APCCE supports the original Proposal 2, and states that it is "the most essential part of the simplified procedure." Mullaney supports the original Proposal 2. CTI fully supports Proposal 2, stating that today's receivers are seldom affected by second- and third-adjacent channel interference.

22. Media-Com, Inc. and Group M Communications, Inc. both support Proposal 2 and state that current second- and third-adjacent channel restrictions have prevented grandfathered stations from improving, or even maintaining existing service areas. Compass Radio of San Diego, Inc. ("Compass") fully supports Proposal 2, stating that adoption would facilitate improvement of station facilities, along with eliminating a significant amount of unnecessary workload on the Commission's staff. Compass' comments include specific examples of stations that have operated with second- or third-adjacent overlap, without receiving interference complaints. NAB submitted comments supporting new requirements that would allow for the relaxation, but not elimination, of second and third-adjacent channel spacing requirements for grandfathered stations. NAB states that "[w]ith full recognition of the generally negative position taken by NAB in our 1991 comments...and in light of the historical, technical foundation of these earlier comments, NAB believes there *may* be ways that *some* grandfathered FM stations could be allowed to modify facilities in a fashion that would not result in significant new interference nor would be at odds with related FCC policies applicable to such changes."

23. *Scope.* The scope of this item is specifically limited to FM stations at locations authorized prior to November 16, 1964, that did not meet the separation distances required by Section 73.207 and have remained continuously short-spaced since that time. The *Notice* specifically invited any parties to assist the Commission in identifying how many grandfathered stations exist so that they could be classified in the Commission's engineering database. NAB performed an analysis and submitted extensive

[14] *See* Fourth Report and Order in *Revision of FM Broadcast Rules, Particularly as to Allocation and Technical Standards*, 40 FCC 868 (1964).

documentation with regard to the number of second- and third-ad
NAB's comments state that the number of possible grandfathere
stations is 312, out of a total of 5,429 authorized FM stations (5.7
that number is too high, since many of these stations became short
as BC Docket 80-90, MM Docket 88-375, the contour protection s
waiver grants. The number of grandfathered second and third-adja
to change site will be further limited as a result of other co-channel
short-spacings. Therefore, the number of grandfathered stations a
and third-adjacent channel station is extremely limited.

24. One of NAB's primary concerns is that the proposed
group of stations. NAB contracted engineering consultant Thor
general potential impact that second-adjacent channel short-spaci
Keller's study included test results of two automotive receivers,
stationary operation, and one portable "boom box" receiver. Kelle
receivers tested did not meet the "...interference-rejection assum
current FM separation requirements." NAB states that "...refineme
in some cases, better rejection of second and third-adjacent channe
here. These developments might form the basis for granting son
spaced stations. However, and this must be emphasized, NAB bel
characteristics should be limited *only* to the possibility of a
grandfathered, short-spaced FM stations, not to the FM medium

25. As stated in the *Notice*, we have "no intention of rela
adjacent channel spacing requirements as allotment and applicat
returning to the exact standard that was used between 1964 an
stations. Thus, our proposal remains aimed exclusively at this st

26. *Additional Criteria.* NAB agrees that second- an
stations are in need of relief from the current Section 73.213 rule
technical integrity of the broadcast media must be preserved and
Corp. ("Eleven-Fifty") believe that second- and third-adjacent
should be required to submit supplemental documentation der
approved by the Commission. NAB proposed four criteria
modification applications would be required to satisfy:

(1) the modification would result in a net decrease ir
interference caused by the applicant to other FM statior

(2) the modification would result in a net decrease in th
applicant to other FM stations;

(3) any site change would not be to a location near a m

(4) any site change would be within a "buffer zone" ar

These criteria are designed to provide "tailored relief to grandfat
assure that any proposal would not adversely affect the short-spa
that these requirements would qualify an applicant for a "rebuttab
be provided," shifting the burden onto the potentially affected
should not be granted, thereby preserving the technical integrit

states that the rights of the potentially affected grandfathered stations would be preserved by adhering to these criteria.

27. NAB's proposed criteria are designed to prevent increases in "...the number of listeners experiencing interference..." and "...the land area of interference caused by the applicant to other stations." We recognize there is a minimal risk of interference between second and third-adjacent channel grandfathered stations. However, such interference is in the immediate area of the transmitter and it is actually a substitution of service in that area. In the period between 1964 and 1987, when second- and third-adjacent channel grandfathered stations were able to modify facilities without spacing requirements, we did not receive interference complaints resulting from such modifications. We believe that the small potential for interference is outweighed by facilitating the ability of this small group of stations to change transmitter site or modify facilities.

28. NAB's proposal also included a requirement that a transmitter site change "would not be to a location near a major traffic thoroughfare -- a site move that could create massive interference to the mobile radio audience." However, as stated above, Keller's limited test results on a small number of receivers would imply mobile receivers are typically able to reject unwanted second-adjacent channel interference. In addition, Compass, Mt. Wilson, Infinity, and Odyssey all agree that NAB's proposed criteria would hinder the result we are trying to achieve by promoting unnecessary appeals and litigation. Compass believes that NAB's proposed criteria have no reasonable technical basis. Infinity reasserts that the FCC is simply proposing a previously used and tested rule. We believe that requiring a station to document its proximity to a "major thoroughfare" would increase the burden on applicants and the Commission, and increase the processing time for each application. It is also unnecessary due to the relatively small areas of interference caused by second- and third-adjacent channel stations. It would also require the staff to establish rules to define what constitutes a major thoroughfare. Therefore, we decline to impose on this limited universe of stations the additional burdens suggested by NAB .

29. *Conclusion.* As the majority of the commenters in this proceeding agree, we believe that reinstatement of the pre-1987 rules regarding second and third-adjacent channel grandfathered stations would best serve the public interest. We see little advantage to require additional exhibits from grandfathered stations proposing site changes or facility modifications. The small risk of interference is far outweighed by the improvement in flexibility and improved service. In addition, as stated in Paragraph 25 of the *Notice*, we have no intention of relaxing second-adjacent-channel and third-adjacent-channel spacing requirements as allotment and assignment criteria for any group except pre-1964 grandfathered stations. Therefore, we are adopting Proposal 2, as originally set forth in the *Notice*, only for this limited universe of stations.

Proposal 3.

30. ***Eliminate the need to obtain agreements between grandfathered short-spaced stations proposing increased facilities.*** The *Notice* proposed to revise Section 73.213(a) to eliminate the need for grandfathered stations to obtain agreements to modify facilities pursuant to 47 C.F.R. § 73.4235. The *Notice* stated that the 1975 Public Notice *("Agreement Notice")* is rarely used today for its original purpose of allowing mutual increases.[15] The *Agreement Notice* is now typically used to justify unilateral modifications.

[15] Agreement Public Notice, *Commission Reaffirms Policy With Respect to Agreements Between Short-Spaced FM Stations*, 35 RR 2d 1063, 57 FCC 2d 1263, [47 C.F.R. § 73.4235](1975).

Comments & Discussion:

31. Of the initial and reply comments on this proposal, should be eliminated, while a few parties disagree with the adoptio "agree that such agreements are unnecessary and would simply frus AFCCE also supports the elimination of agreements. Compass "ent Proposal 3 to eliminate the need to obtain agreements by grandfa Davis and Chagal Communications support adoption of Proposa supportive of all three Proposals, without specific mention of Pr

32. In opposition to Proposal 3, Mullaney suggests that and require a "higher level" of public interest to justify grant o ("Kelsho") suggests that the Commission has "no good reasons policy." Odyssey Communications, Inc. ("Odyssey") opposes believes it will have a harmful effect on stations and the public the policy for its intended purposes of promoting mutual increas Inc. ("Spanish") avers that agreements that "improve service and and encouraged by the Commission."

33. *Conclusion.* The provisions set forth in the *Agree* stations increasing facilities pursuant to an agreement to submit *Agreement Notice* stated that the public interest showing must in receive new service, along with those receiving interference, assu mutual increase agreement. This is very similar to what we are a first-adjacent channel stations. The *Agreement Notice* also stat apply to changes in transmitter location. Furthermore, the *Agre* original purpose of providing for mutual increases by grandfat

34. Under the rules adopted herein, most applicants w using Proposals 1 and 2 above, that in the past required a writte station. Second and third-adjacent channel grandfathered requirements and co-channel and first-adjacent stations will be a that weren't previously permitted under the *Agreement Notice*. Proposals are aimed at establishing that each proposal would s past, affected parties were notified of another applicant's propos Since we are eliminating the requirement for agreements, cert longer be involved in the modification process for proposals tha Therefore, we will require that a copy of any application for co- proposing predicted interference caused in any areas where int caused must be served upon the licensee(s) of the affected s potentially affected parties to examine the proposal and prov objections against such applications. The proposed rules will continue to require agreements along with public interest show to obtain an agreement from another short-spaced station is tan by another broadcaster. As stated in the *Notice*, we find that serves its original purpose and can be eliminated without any h or the public. Therefore, we will eliminate the requirement fo

CONCLUSION

35. We believe that the modified procedures and related rule revisions adopted herein will provide this group of grandfathered stations with significantly greater flexibility in making transmitter site changes and other facility modifications, while preserving or improving the overall technical integrity of the FM band. Our experience working with the current rule guides us to adopt these changes in our grandfathered short-spacing rules. Co-channel and first-adjacent channel grandfathered stations will be able to make modifications and improvements using straight-forward interference calculations. This will enable us to more accurately predict and control interference. Eligible grandfathered stations will be able to propose facility modifications without regard to existing grandfathered second- and third-adjacent channel short-spacings. Finally, grandfathered stations will no longer need to obtain agreements from other grandfathered stations before proposing modifications.

36. Accordingly, to the extent provided herein, we amend Section 73.213(a) of our Rules and delete Section 73.4235. As set forth in the *Notice*, the Commission will process any such waiver requests which remain pending as of the effective date of this *Order* in accordance with the revised rule.[16]

ORDERING CLAUSES

37. Accordingly, IT IS ORDERED that pursuant to the authority contained in Sections 4(i), 303(r), and 307(c) of the Communications Act of 1934, as amended, 47 C.F.R. Part 73 IS AMENDED as set forth in Appendix A below.

38. IT IS FURTHER ORDERED that the requirements and regulations established in this *Report and Order* WILL BECOME EFFECTIVE 60 days from the date of publication in the Federal Register, or upon receipt by Congress of a report in compliance with the *Contract with America Advancement Act of 1996*, Pub. L. No. 104-121, whichever date is later.

39. For further information contact Jim Bradshaw of the Audio Services Division, Mass Media Bureau at (202)-418-2740, or by e-mail at *jbradsha@fcc.gov*.

FEDERAL COMMUNICATIONS COMMISSION

William F. Caton
Secretary

[16] The Mass Media Bureau has identified several pending applications which seek waivers of the current rule but which may comply with Section 73.213(a) as modified in this *Order*. We direct the staff to reconsider these applications under the revised standards adopted herein and delegate to the Chief of the Mass Media Bureau authority to waive Section 73.213 prior to the effective date of this *Order* where the public interest would be served. Any Section 73.213 waiver granted by staff prior to the effective date of the *Order* shall be subject to the final outcome in this proceeding. We also are aware that there is now one application before the Commission which requests a Section 73.213 waiver and remand this application to the Mass Media Bureau for reconsideration consistent with this delegation. *See* File No. BPH-910612ID, Oceanside, CA. We remind all parties that all contested applications retain their restricted status following adoption of the *Order*.

APPENDIX A

47 C.F.R. Part 73 is revised as follows:

PART 73 - RADIO BROADCAST SERVICES

1. The authority citation for Part 73 continues to read as follo

Authority: 47 U.S.C. 154, 303

2. Section 73.213 is revised to read as follows:

§73.213 Grandfathered short-spaced stations.

(a) Stations at locations authorized prior to November 16, 1964 t
required by §73.207 and have remained continuously short-spa
relocated with respect to such short-spaced stations, provide
interference-free service would receive co-channel or first-adja
accordance with paragraph (a)(1) of this section, or that (ii) a sh
(a)(2) of this section that demonstrates that the public interest v

(1) The F(50,50) curves in Figure 1 of §73.333 of this
proposed effective radiated power and antenna height ab
to §73.313(c), (d)(2) and (d)(3), using data for as ma
location of the desired (service) field strength. The F
this part are to be used in conjunction with the propo
height above average terrain, as calculated pursuant t
for as many radials as necessary, to determine the lo
strength. Predicted interference is defined to exist on
field strength exceeds 0.5 mV/m (54 dBu) for a Class
B1 station, and 1 mV/m (60 dBu) for any other clas

(i) Co-channel interference is predicted to
locations where the undesired (interfering sta
20 dB below the desired (service) F(50,50) f
(e.g., where the protected field strength is 6
40 dBu or more for predicted interference

(ii) First-adjacent channel interference is pre
at all locations where the undesired (interf
a value 6 dB below the desired (service)
considered (e.g., where the protected field s
must be 54 dBu or more for predicted inte

(2) For co-channel and first-adjacent channel statio
served by the changes proposed in an application
total area and population subject to co-channel or

received, would be maintained or decreased. In addition, the showing must include exhibits demonstrating that the area and the population subject to co-channel or first-adjacent channel interference caused by the proposed facility to each short-spaced station individually is not increased. In all cases, the applicant must also show that any area predicted to lose service as a result of new co-channel or first-adjacent-channel interference has adequate aural service remaining. For the purpose of this Section, adequate service is defined as 5 or more aural services (AM or FM).

(3) For co-channel and first-adjacent-channel stations, a copy of any application proposing interference caused in any areas where interference is not currently caused must be served upon the licensee(s) of the affected short-spaced station(s).

(4) For stations covered by this rule, there are no distance separation or interference protection requirements with respect to second-adjacent and third-adjacent channel short-spacings that have existed continuously since November 16, 1964.

* * * * *

3. Section 73.4235 is deleted.

APPENDIX B

List of Commenters

Initial Comments

Association of Federal Communications Consulting Engineers
Barnstable Broadcasting, Inc.
Brown Broadcasting Service, Inc.
Chagal Communications
Communications Technologies, Inc.
Compass Radio of San Diego, Inc.
John J. Davis
Eleven-Fifty Corp.
Gallagher & Associates
Group M Communications, Inc.
Harvard Radio Broadcasting Co., Inc.
Hatfield & Dawson; duTreil, Lundin & Rackley; Cohen, Dippell & Everist
Jarad Broadcasting
KALI-FM, Inc.
Kelsho Radio Group, Inc.
Liberman Broadcasting, Inc.
Livingston Radio Company
Media-Com, Inc.
Mullaney Engineering, Inc.
E. Harold Munn, Jr.
National Association of Broadcasters
Odyssey Communications, Inc.
Renard Communications Corp.
Taxi Productions, Inc.
WPNT, Inc.
WTBO-WKGO Corporation
WTUC, Richard L. Harvey
WYCQ, Inc.
Z Spanish Radio Network, Inc.

Reply Comments	
Alpeak Broadcasting Corporation	("Alpeak")
Barden Broadcasting, Inc.	("Barden")
Barry Broadcasting Company	("Barry")
Berkshire Broadcasting Corporation	("Berkshire")
Compass Radio of San Diego, Inc.	("Compass")
Educational Information Corporation	("EIC")
Greater Media Radio Company	("Greater")
Infinity Broadcasting Corporation	("Infinity")
Kelsho Radio Group, Inc.	("Kelsho")
Livingston Radio Company	("Livingston")
Media-Com, Inc.	("Media-Com")
Metro TV, Inc.	("Metro")
Mt. Wilson FM Broadcasters, Inc.	("Mt. Wilson")
National Association of Black Owned Broadcasters	("NABOB")
National Association of Broadcasters	("NAB")
Odyssey Communications, Inc.	("Odyssey")
Paxson Communications Corporation	("Paxson")
Pinnacle Southeast, Inc.	("Pinnacle")
Carl E. Smith	("Smith")
WTBO-WKGO Corporation	("WTBO")
WTUC, Richard L. Harvey	("WTUC")
WYCQ, Inc.	("WYCQ")

APPENDIX C

PAPERWORK REDUCTION ACT S

This *Report and Order* contains new or modified inform
the Paperwork Reduction Act of 1995 ("*PRA*"). It has been su
and Budget ("OMB") for review under the *PRA*. OMB, the ge
are invited to comment on the new or modified information co

FINAL REGULATORY FLEXIBILI

As required by the Regulatory Flexibility Act[17] (RFA)
flexibility issues in the Notice of Proposed Rulemaking in thi
Spaced FM Stations.[18] The Commission sought written publi
Notice. The Commission's Final Regulatory Flexibility Anal
conforms to the RFA as amended.[19]

A. Need For and Objectives of the Rules:

The Commission's Rules currently require pre-1964
proposing transmitter site changes or facility modifications
field strength contour is not extended toward the 1 mV/m
which it is short-spaced. This rule was found to be overly
interpretations. The Commission therefore proposed revisi
the current rule with a simple rule based on straight-forwa
eliminate spacing requirements for second and third-adjac

By making these changes, grandfathered stations
changing transmitter site or proposing facility modificatio
filing a minor change application. The new regulations
the public, with minimal impact on existing stations. Th
from the Commission. The exact circumstances in whic
in 47 C.F.R. § 73.213(a) (*see* Appendix A of this *Repor*

**B. Summary of Significant Issues Raised by Public C
Flexibility Analysis:**

No comments were received specifically in res
contained in the *Notice of Proposed Rulemaking*. How
effects of the proposed rule changes on FM licensees,

---

[17] See 5 U.S.C. § 603.

[18] *Notice of Proposed Rulemaking* in MM Docket No.

[19] See 5 U.S.C. § 604. The Regulatory Flexibility Ac
Contract with America Advancement Act of 1996, Pub L.
of the CWAAA is the "Small Business Regulatory Enforc
the Notice was issued prior to enactment of the amendm

commenters favored the rule changes proposed, with minor changes, some of which have been incorporated into the rules specified in Appendix A of this *Report and Order*.

C. Description and Estimate of the Number of Small Entities To Which the Rule Will Apply:

The RFA generally defines "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction" and the same meaning as the term "small business concern" under the Small Business Act unless the Commission has developed one or more definitions that are appropriate for its activities.[20] A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).[21] According to the SBA's regulations, entities engaged in radio broadcasting (Standard Industrial Classification ("SIC") Code 4832 for radio) may have a maximum of $10.5 million in annual receipts in order to qualify as a small business concern. 13 C.F.R. §§ 121.201. This standard also applies in determining whether an entity is a small business for purposes of the Regulatory Flexibility Act.

Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency after consultation with the Office of Advocacy of the SBA and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."[22] While we tentatively believe that the foregoing definition of "small business" greatly overstates the number of radio broadcast

[20] 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.

[21] Small Business Act, 15 U.S.C. § 632 (1996).

[22] We tentatively conclude that the SBA's definition of "small business" greatly overstates the number of radio and television broadcast stations that are small businesses and is not suitable for purposes of determining the impact of the proposals on small radio and television stations. However, for purposes of this *Report and Order*, we utilize the SBA's definition in determining the number of small businesses to which the proposed rules would apply, but we reserve the right to adopt a more suitable definition of "small business" as applied to radio and television broadcast stations or other entities subject to the rules adopted in this *Report and Order* and to consider further the issue of the number of small entities that are radio and television broadcasters or other small media entities in the future. *See Report and Order* in MM Docket 93-48 (*Children's Television Programming*), 11 FCC Rcd 10660, 10737-38 (1996), citing 5 U.S.C. 601 (3). In our *Notice of Inquiry* in GN Docket No. 96-113B, *In the matter of Section 257 Proceeding to Identify and Eliminate Market Entry Barriers for Small Businesses*, 11 FCC Rcd 6280 (1996), we requested commenters to provide profile data about small telecommunications businesses in particular services, including television and radio, and the market entry barriers they encounter, and we also sought comment as to how to define small businesses for purposes of implementing Section 257 of the Telecommunications Act of 1996, which requires us to identify market entry barriers and to prescribe regulations to eliminate those barriers. Additionally, in our *Order and Notice of Proposed Rulemaking in MM Docket 96-16, In the Matter of Streamlining Broadcast EEO Rules and Policies, Vacating the EEO Forfeiture Policy Statement and Amending Section 1.80 of the Commission's Rules to Include EEO Forfeiture Guidelines*, 11 FCC Rcd 5154 (1996), we invited comment as to whether relief should be afforded to stations: (1) based on small staff and what size staff would be considered sufficient for relief, *e.g.*, 10 or fewer full-time employees; (2) based on operation in a small market; or (3) based on operation in a market with a small minority work force.

stations that are small businesses and is not suitable for purpos
rules on small business, we did not propose an alternative defi
Analysis. Accordingly, for purposes of this *Report and Order*,
determining the number of small businesses to which the rules
a more suitable definition of "small business" as applied to rad
further the issue of the number of small entities that are radio
this FRFA, we will identify the different classes of small radio
rules adopted in this *Report and Order*.

Commercial Radio Services:

The rules and policies adopted in this Order will apply
potential licensees. The SBA defines a radio broadcasting sta
annual receipts as a small business.[23] A radio broadcasting sta
engaged in broadcasting aural programs by radio to the public.
commercial religious, educational, and other radio stations.[25]
primarily are engaged in radio broadcasting and which produc
included.[26] However, radio stations which are separate establi
producing radio program material are classified under another
indicates that 96 percent (5,861 of 6,127) radio station establis
revenue in 1992.[28] Official Commission records indicate that
operating in 1992.[29] As of March, 1997, official Commission
stations were operating.[30]

It is estimated that the proposed rules will affect abou
of which are small businesses.[31] These estimates are based o
and may overstate the number of small entities since the reve
not include aggregate revenues from non-radio affiliated com

[23] 13 C.F.R. § 121.201, SIC 4832.

[24] Economics and Statistics Administration, Bureau of Census, U
Appendix A-9.

[25] *Id.*

[26] *Id.*

[27] *Id.*

[28] The Census Bureau counts radio stations located at the same
co-located AM/FM combination counts as one establishment.

[29] FCC News Release No. 31327, Jan. 13, 1993.

[30] FCC News Release No. 64958, Sept. 6, 1996.

[31] We use the 96% figure of radio station establishments with les
and apply it to the 12,088 individual station count to arrive at 11,6

Alternative Classification of Small Stations

An alternative way to classify small radio stations is the number of employees. The Commission currently applies a standard based on the number of employees in administering its Equal Employment Opportunity Rule (EEO) for broadcasting.[32] Thus, radio stations with fewer than five full-time employees are exempted from certain EEO reporting and record keeping requirements.[33] We estimate that the total number of grandfathered broadcast stations with 4 or fewer employees is approximately 120.[34]

D. Projected Compliance Requirements of the Rule:

Applicants filing a modification application will be required to provide similar exhibits to those currently required for a construction permit. This information may consist of an interference analysis showing that no area previously receiving interference-free service would receive co-channel or first-adjacent channel interference using the desired to undesired signal strength ratio interference calculation method.

Alternatively, for co-channel and first-adjacent channel applicants, a showing that the public interest would be served by the changes proposed in an application must include exhibits demonstrating that the total area and population subject to co-channel or first-adjacent channel interference, caused and received, would be maintained or decreased. In addition, the showing must include exhibits demonstrating that the area and the population subject to co-channel or first-adjacent channel interference caused by the proposed facility to each short-spaced station individually is not increased. In all cases, the applicant must also show that any area predicted to lose service as a result of new co-channel or first-adjacent-channel interference has adequate aural service remaining. For these purposes, adequate service is defined as 5 or more aural services (AM or FM). Finally, any applicant proposing interference caused in an area where interference is not caused must serve its application upon the licensee(s) of the affected short-spaced station(s). The above-listed requirements

[32] The Commission's definition of a small broadcast station for purposes of applying its EEO rules was adopted prior to the requirement of approval by the SBA pursuant to Section 3(a) of the Small Business Act, 15 U.S.C. § 632(a), as amended by Section 222 of the Small Business Credit and Business Opportunity Enhancement Act of 1992, Public Law 102-366, § 222(b)(1), 106 Stat. 999 (1992), as further amended by the Small Business Administration Reauthorization and Amendments Act of 1994, Public Law 103-403, § 301, 108 Stat. 4187 (1994). However, this definition was adopted after the public notice and the opportunity for comment. *See Report and Order* in Docket No. 18244, 23 FCC 2d 430 (1970), 35 FR 8925 (June 6, 1970).

[33] *See, e.g.*, 47 C.F.R. § 73.3612 (Requirement to file annual employment reports on Form 395 applies to licensees with five or more full-time employees); First Report and Order in Docket No. 21474 (*Amendment of Broadcast Equal Employment Opportunity Rules and FCC Form 395*), 70 FCC 2d 1466 (1979), 50 FR 50329 (December 10, 1985). The Commission is currently considering how to decrease the administrative burdens imposed by the EEO rule on small stations while maintaining the effectiveness of our broadcast EEO enforcement. *Order and Notice of Proposed Rule Making in MM Docket 96-16 (Streamlining Broadcast EEO Rule and Policies, Vacating the EEO Forfeiture Policy Statement and Amending Section 1.80 of the Commission's Rules to Include EEO Forfeiture Guidelines)*, 11 FCC Rcd 5154 (1996), 61 FR 9964 (March 12, 1996). One option under consideration is whether to define a small station for purposes of affording such relief as on with ten or fewer employees.

[34] Compilation of 1994 Broadcast Station Annual Employment Reports (FCC Form 395B), Equal Opportunity Employment Branch, Mass Media Bureau, FCC.

are similar to the interference exhibits required by the previous ru

Second-adjacent and third-adjacent channel grandfathered submit interference exhibits, therefore reducing the filing burden.

The information required with a modification application for the Commission to verify compliance with its rules and regu procedures will reduce the time and expense required to implem grandfathered broadcast stations. Most permittees and licensees engineers or legal counsel, or both in preparing construction per this to change significantly by the adoption of the new rules an needed for the preparation of the simplified applications will b waiver requests, translating into time and money savings for th

E. Significant Alternatives Considered Minimizing the Eco Consistent with the Stated Objectives:

The burdens on co-channel and first-adjacent-chan similar to the requirements under the previous rule section. adjacent grandfathered applicants will be reduced. Modificat lesser amounts of information be submitted to the Commissi submitted under the previous rules. The rule and policy cha impact, as eligible entities, including small entities, will be transmitter site changes that were previously inhibited by th informal objections against a modification application, just applicant proposing to cause interference in an area previou application on the licensee(s) of the affected station(s).

F. Report to Congress

The Secretary shall send a copy of this Final Regulatory *and Order* in a report to Congress pursuant to Section 251 Enforcement Fairness Act of 1996, codified at 5 U.S.C. § be published in the *Federal Register*.

e
ns Commission
C. 20554

TICE

Released July 29, 1988

TIC, PACIFIC BELL,
THWESTERN BELL
OST MANUALS

stablished

CC Rcd 1298 (1987), the
ephone companies to file
s containing the methods
providing regulated tele-
f nonregulated activities.
n 1987, and the Common
approved the manuals of
nditionally approving the
e carriers to periodically
ate. Carriers must submit
ls at least 60 days prior to
change the cost categories
, or change the way that
e Bureau stated that the
ortunity to comment on

ompanies filed proposed
manuals that describe the
chanisms. (U S West filed
the notice requirement.)
panies propose to revise
logies. The Bell Atlantic
add cost pools in certain
ionment methodology for
l proposes a change in its
e time, and revisions to its
chanisms. Pacific Bell and
terminology (which they
t apportionment tables.
the proposed revisions to
August 15, 1988. Replies
88.

ns may be obtained from
ices, Inc., 2100 M Street,
202) 857-3800. Copies are
ion in the Accounting and
room, Room 812, 2000 L
554.

ct Alicia Dunnigan, (202)

ONS COMMISSION

WRRH

2 ADJ
WFDU
WBGO

Before the
Federal Communications Commission
Washington, D.C. 20554

In re Application of

RAMAPO INDIAN HILLS REGIONAL HIGH SCHOOL DISTRICT — File No. BPED-821013AD

For Modification of Noncommercial Educational Station WRRH (FM)
Franklin Lakes, New Jersey

MEMORANDUM OPINION AND ORDER

Adopted: July 26, 1988; **Released: August 12, 1988**

By the Commission:

1. The Commission has before it for consideration an application for review filed by Ramapo Indian Hills Regional High School District (Ramapo), licensee of Station WRRH (FM), Franklin Lakes, New Jersey, arising out of the July 14, 1986 denial of the applicant's petition for reconsideration of the dismissal and return of its above-captioned application for modification of facilities.

2. Ramapo has been licensed since 1963 to operate WRRH as a Class D (10-watt) noncommercial educational FM station on Channel 204 (88.7 MHz) from its George Street transmitting antenna location in Franklin Lakes, New Jersey.[1] In response to the Commission's *Public Notice* A-52 (Mimeo No. 6396, released September 15, 1982) notifying potential applicants of the October 21, 1982 "cut-off" date for the filing of applications to be considered mutually exclusive with an application filed by William Paterson State College Student Cooperative Association (File No. BPED-820330AM) to serve Wayne, New Jersey, Ramapo filed an application to upgrade its facilities to minimum Class A (100-watt) status. While this proposal would have increased WRRH's coverage area by approximately 190%, it would also have violated Section 73.509 of the Commission's Rules by creating prohibited overlap of its signal with the signals of the licensed second-adjacent channel facilities of noncommercial educational stations WFDU (Teaneck, New Jersey) and WBGO (Newark, New Jersey). Although patently not in accordance with the Commission's Rules, Ramapo's application was accompanied by "an appropriate request for waiver" and was therefore found acceptable for filing pursuant to Section 73.3566(a) of the Commission's Rules.[2]

3. In its waiver request, Ramapo claimed that the power increase would cause small amounts of interference to the protected service contours of WBGO and WFDU, but that the increase was necessary to continue interference-free service to the area served by the Ramapo Indian Hills High School District *Ramapo Application*, at page 2-9 of Engineering Exhibit. On November 6, 1984, the Mass Media Bureau denied Ramapo's waiver request, ruling that Ramapo failed to substantiate its *de minimis* interference [illegible] no data on the population in the Ramapo failed to demonstrate that its proposal was the most technically feasible method to improve its facilities. *Letter to Bud Van Ganderson from Larry D. Eads, Chief, Audio Services Division*.[3]

4. Ramapo petitioned on December 20, 1984, for reconsideration of this action, repeating its claim of *de minimis* interference and arguing for the first time that it was "a bona fide mutually exclusive applicant with the renewal applications of WBGO and WFDU" since it was "on file and accepted at the time that the licenses of WBGO and WFDU expired on June 1, 1984." *Reconsideration*, at page 3. Therefore, Ramapo claimed that it was entitled to consolidation with these renewal proceedings. In its opposition to Ramapo's petition, Fairleigh Dickinson University, licensee of FM station WFDU, described the affected interference area as "among the most densely populated regions in New Jersey" and claimed that "thousands of people would suffer ruinous interference as a result of implementation of Ramapo's proposal." *Opposition*, at paragraph 5. Fairleigh Dickenson also suggested that a move of Ramapo's transmitting facility to its second studio site at Indian Hills High School in Oakland Township could result in interference-free operations. *Opposition*, at paragraph 4. The Mass Media Bureau denied Ramapo's request for reconsideration, again emphasizing that Ramapo's waiver request failed to quantify the population which would be adversely affected by the proposed upgrade and noting that the applicant expressly stated in Section I, Item 5 of its application (presently Section I, Item 3) that its application was not mutually exclusive with the renewal application of any existing station.[4] *Letter to Donald E. Martin, P.C. from Larry D. Eads, Chief, Audio Services Division*, dated July 14, 1986. The Bureau further stated that Ramapo failed to exercise either its pre-grant right to claim mutual exclusivity with the WBGO and WFDU renewal applications (BRED-840201BG and BRED-840201DK, respectively) or its post-grant right (pursuant to Section 1.106) to request reconsideration of the May 17, 1984 grants of these renewal applications. Having denied Ramapo's request for reconsideration, the Bureau granted William Paterson's application to serve Wayne, New Jersey.

5. In its application for review, Ramapo fails to challenge the Bureau's denial of its request for waiver of § 73.509 and concentrates entirely on its alleged procedural right to a comparative hearing with the WBGO and WFDU renewal applications. Specifically, Ramapo alleges that its application "was dismissed without a hearing in violation of Section 309 of the Communications Act, the *Ashbacker* decision, and the line of cases following it" and that the denial of its waiver request did not defeat the application's acceptability against a renewal application. *Application for Review*, at page 6. In opposition, Fairleigh Dickinson University and Newark Public Radio, licensee of WBGO(FM), argue that Ramapo's application and waiver request clearly indicate that it wished to avoid mutual exclusivity with WBGO and WFDU and Ramapo cannot now claim the rights of a mutually exclusive applicant through a post-hoc rationalization as to why its application should be given further consideration by the Commission." *Joint Opposition to Application for Review*, at page 4. WBGO and WFDU further argue that no Commission policy favors the retention of a defective application in pending status so that "years later, it can be considered on a mutually exclusive basis with a renewal application." *Id.*, at page 5.

v. FCC, 306 U.S. 327
y exclusive only when it
ould effectively preclude
claim by one applicant
nother's does not, *ipso*
KLUC Broadcasting Co.,
ation for review denied,
by require that the ap-
ng." "The determination
lly involve 'conflicting
mission on an informal
vailable data." *Mansfield*
55, 158 (1966), *reconsi-*
66).

y with pending license
516(e) of the Rules re-
pplications be "tendered
st day of the last full
g license term" This
de "a date certain, prior
ense term, by which the
ewal applicant may be
mutually exclusive ap-
Rule Making in Docket
This procedure "should
ction permit applicant],"
sons interested in filing
ith license renewal ap-
our rules, of the fixed
in given geographical
he requirement for the
ons 90 [now 120] days
nt license term." *Id.*, at

po could have claimed
O and WFDU renewal
cation prior to the May
s response to Section 1,
ereby indicating that it
ly exclusive with these
waiver to avoid a con-
e to file such an amend-
he purpose of Section 1.
provide the Commission
herwise know. . . [and]
at WBGO and WFDU
tion for Review, at page
not simply require ap-
n of matters we "might
rule imposes upon ap-
ntaining the continuing
e information contained
es that applications be
any additional or cor-
e of decisional signifi-
d to change its proposal
the WBGO and WFDU
ve with those stations'
f decisional significance
e Commission. Having
he staff reasonably con-
ain a waiver of § 73.509
d WFDU renewals. The
e WBGO and WFDU
any way either satisfy

Ramapo's responsibility to inform the Commission of its desired change in status or excuse its failure to file a § 1.65 amendment.

9. Ramapo was required pursuant to 47 C.F.R. § 73.3514(a) to provide all the information called for in its application form and, when that information was "no longer substantially accurate or complete in all significant respects," to amend its application pursuant to 47 C.F.R. § 1.65. This procedure is consistent with both the wide discretion afforded the Commission by Section 154(j) of the Communications Act of 1934, as amended, to fashion procedures "as will best conduce to the proper dispatch of business and to the ends of justice" (*See also*, 47 U.S.C. § 303(r)) and with the specific intent of Section 1.65 to place upon applicants the responsibility for reporting any substantial change "in circumstances pertaining to basic qualifications . . . and factors urged as basis for grant or a comparative preference." *Report and Order* in Docket 18467, 3 RR 2d 1622, 1624 (1964). As a seasoned licensee of 25 years duration, Ramapo's lack of diligence in reporting a substantial change in its status against the WBGO and WFDU license renewal applications is inexplicable. With seven renewals of its original license (BLED-388) to date, Ramapo should be fully cognizant of the rules governing the license renewal process. "We expect a diligent applicant to apprise [itself] of the applicable Commission regulations and to take steps necessary to comply with those requirements." *Bronco Broadcasting Co., Inc.*, 58 FCC 2d 909, 912 (1976). We can only conclude, therefore, that Ramapo's acknowledged failure in making a timely claim of mutual exclusivity is the result of its own lack of diligence rather than of any miscarriage of Commission processing routines.

10. Finally, Ramapo claims that its waiver request indicates, by virtue of the prohibited overlap, that its application is mutually exclusive with the WBGO and WFDU renewals and it is therefore clear that all three applications cannot be granted. Citing *Mansfield Broadcasting Company*, 8 RR 2d 155, Ramapo claims that a hearing is warranted in this case because grant of the renewals precludes grant of its own application.[1] This argument is without merit. In requesting a waiver of 47 C.F.R. § 73.509, Ramapo implicitly suggested that its proposal was *not* to be considered mutually exclusive with the WBGO and WFDU renewals since all three applications could be granted if a waiver of the allegedly *de minimis* overlap was granted, and that this was Ramapo's desired result. This implicit suggestion was confirmed by Ramapo's negative response to Section 1, Item 5. Once advised that the showing in support of its waiver request lacked critical information, Ramapo cannot simply change course and assert the rights of a mutually exclusive applicant nearly eight months after the cut-off date for filing applications mutually exclusive with the WBGO and WFDU renewal applications and seven months after grant of these renewal applications. Moreover, since the possibility of a waiver, given the appropriate showing, has never been rejected out of hand, it can not be said that grant of the renewals precluded grant of Ramapo's proposal.

11. At various stages in this proceeding, Ramapo had several options available to it. Upon receiving notice that its request for waiver lacked critical information, Ramapo could have supplemented the waiver request to provide the necessary information on the population affected by the proposed changes; it chose not to do so. Ramapo

Commission that its proposal was to be considered mutually exclusive with the WBGO and WFDU renewals. Again, no such amendment was filed. Finally, once the WBGO and WFDU renewals were granted, Ramapo could have requested, through a timely filed petition for reconsideration, that these grants be set aside and that its application be consolidated with those renewal proceedings. Because Ramapo failed to exercise any of these options, we agree with WBGO and WFDU that Ramapo cannot be permitted to fashion a "post-hoc rationalization" for giving its application further consideration.

12. Accordingly, IT IS ORDERED, That the application for review filed by Ramapo Indian Hills Regional High School District IS DENIED.

13. IT IS FURTHER ORDERED, That the Chief, Mass Media Bureau, shall send, by Certified Mail-Return Receipt Requested, a copy of this Memorandum Opinion and Order to each of the parties to this proceeding.

FEDERAL COMMUNICATIONS COMMISSION

H. Walker Feaster, III
Acting Secretary

FOOTNOTES

[1] In the *Second Report and Order* in Docket 20735, 13 Fed. Reg. 39704, 39708 (1978), the Commission ruled that "low power operations [10-watt] cannot be permitted to function in a manner which defeats the opportunity for other more efficient operations which could serve larger areas." Accordingly, the Commission directed such licensees to move their Class D operations, in preferential order, to one of the nonreserved (commercial) channels, to Channel 200 or to the least-preclusive reserved band (noncommercial) channel. Those stations seeking to exempt themselves from this requirement and, ultimately, reclassification to class D secondary status, could file an application to increase their facilities to at least the minimum Class A level of 100 watts effective radiated power.

[2] *Public Notice* B-34 (Mimeo No. 3023, released March 21, 1983).

[3] Specifically, the Bureau noted that Ramapo failed to address alternative solutions to the potential interference problem such as the utilization of a directional antenna and/or a reduction in the antenna height above average terrain.

[4] The deadline for filing applications mutually exclusive with the WBGO and WFDU renewal applications was May 1, 1984. Because no applications claiming mutual exclusivity with these renewals had been filed, the Bureau granted the WBGO and WFDU renewals on May 17, 1984. In an unrelated action, WBGO's renewal was rescinded July 3, 1984, based on that application's established mutual exclusivity with Drew University's proposal (File No. BPH-831212AE) to upgrade its Madison, New Jersey facilities to Class A status.

[5] Section I, Item 5 (presently Section I, Item 3) of FCC Form 340 specifically requests whether the application being filed is mutually exclusive with a license renewal application and, if so, requires the applicant to identify the call sign and community of license of the station seeking renewal. Ramapo responded negatively to this question thereby expressly representing that its application was not mutually exclusive with any license renewal.

[6] Furthermore, it is well established that the Commission need not hold a hearing on applications it rejects for failing to meet its technical acceptance rules. *Columbia Communications Corporation v. FCC*, 832 F.2d 189, 193 (D.C. Cir. 1987), citing *Storer Broadcasting*, 351 U.S. at 202, 205, 76 S. Ct. at 770, 771-72 (1950).

[7] In *Mansfield*, the Commission refused to sever a *pending* AM application from a larger group of mutally exclusive applications and consolidate it for hearing with another application not in the group. The Commission held that no prohibited overlap existed between the two applications and the grant of one application would not therefore preclude grant of the other. Ramapo mistakenly titles this citation Ocean County Radio Broadcasting. Since Ramapo's references are contained within Mansfield, we will use the correct title in the body of this Order.

PCL